

Biaxially stretched ultra-high mol. wt. polyolefin film - has high tensile strength and impact strength and is used for packing, etc.

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Patent Family

Patent Number	Kind	Date	Application Number	Kind	Date	Week	Type
JP 6262679	A	19940920	JP 93157699	A	19930628	199442	B
JP 95085907	B2	19950920	JP 93157699	A	19830610	199542	

Priority Applications (Number Kind Date): JP 93157699 A (19930628)

Patent Details

Patent	Kind	Language	Page	Main IPC	Filing Notes
JP 6262679	A		7	B29C-055/12	
JP 95085907	B2		8	B29C-055/12	Based on patent JP 6262679

Abstract:

JP 6262679 A

The film has an intrinsic viscosity of at least 5.0 dl/g (measured at 135 deg.C in decalin) and longitudinal and transverse draw ratios of at least 3.0 for the solidified film and a breaking strength of at least 720 kg/cm².

Also claimed is the prodn. of the film by extruding a mixt. comprising (A) such polyolefin and (B) a hydrocarbon plasticiser having a b.pt. higher than the m.pt. of (A) and having a melt flow rate of 0.005-50 g/10 min., solidifying the extruded film and stretching the solidified film to a longitudinal ratio and a transverse draw ratio of at least 3.0 to provide a polyolefin film having a breaking strength of at least 720 kg/cm².

The polyolefin is prepd. by polymerising ethylene, propylene, 1-butene, 4-methyl-1-pentene in the presence of a Ziegler catalyst. (B) is pref. paraffin wax (e.g., at least 22C n-alkane, its mixt. with a lower n-alkane, paraffin wax prepd. from petroleum, low pressure-, intermediate- or high pressure process polyethylene wax, thermally degraded polyethylene wax, oxidised wax or wax modified by maleic acid). The process is carried out by mixing (A) and (B) to provide a blend having a melt flow rate of 0.005-50 g/10 min., extruding the blend through a die and stretching biaxially concurrently or subsequently from at least 60 deg.C to a temp. lower than the m.pt. of (A).

ADVANTAGE - The film is used for capacitor, insulating or dialysing films, or electret film by extracting the plasticiser with n-hexane or n-heptane.